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Some Protozoa from Fayette, Iowa

Guy West Wilson

SOME PROTOZOA FROM FAYETTE, IOWA.

BY GUY WEST WILSON.

During the past autumn several cultures were made from ponds, springs and streams in the vicinity of Fayette for the purpose of providing material for class use. As the number of species of Protozoa represented appeared to be much greater than the author had observed elsewhere, a record of their identity and abundance was kept. A partial result of this work is the present list of thirty-three species, in addition to which several others were observed, but not identified. Inasmuch as Dr. Edmundson's "Protozoa of Iowa" formed the basis of the taxonomic portion of the work, the Euglenidae are included in the list, although the author is by no means convinced of their animal nature.

RHIZOPODA.

Family Amoebidae.

1. AMOEBA PROTEUS Leidy.

Found abundantly and of large size in several cultures from ponds, especially those which contained an abundance of semi-decaying vegetation.

2. AMOEBA RADIOSA Ehr.

A very few specimens were found in company with the preceding species.

3. AMOEBA VILLOSA Wallich.

A few specimens were observed in cultures of pond water.

Family Arcellidae.

4. DIFFULGIA PYRIFORMIS Perty.

Common in cultures containing *Algae* and *Naias*. A careful search failed to reveal the presence of other species.

5. ARCELLA VULGARIS Ehr.

Not uncommon in ponds and streams, often in company with diatoms.

HELIOZOA.

Order Aphrothoracidae.

6. ACTINOPHRYS SOL Ehr.

In ponds and springs, rather rare, and usually in company with Diffulgia.

FLAGELLIDA.

Family Heteromonadidae.

7. ANTOPHYSA VEGETANS Muhl.

This interesting collonial form appeared in great abundance in cultures in which *Nymphaea advena* and *Naias* occur.

Family Euglenidae.

8. EUGLENA VIRIDIS Ehr.
Very common in cultures which later developed an abundance of *Amoeba proteus*.

9. EUGLENA SPIROGYRA Ehr.
Equally common and in cultures from the same source as the last specimen, with which it frequently occurred.

10. EUGLENA ACUS Ehr.
Only a few specimens were found in cultures of pond water.

11. PHACUS sp.
Observed sparingly in company with *Euglena viridis*, but not satisfactorily identified as to species.

Family Astasiidae.

12. ASTASIA TRICHOPHORA Ehr.
Rare in old cultures among *Algae*.

Family Paranemidae.

13. ANISONEMA LUDOBUNDUM SK.
Common in cultures from various sources.

INFUSORIA.

Family Echelinidae.

14. COLEPS HIRTUS Ehr.
Common in cultures in which *Paramaecium caudatum* appeared later.

15. TRACHELOPHYLLUM TRACHYBLASTUM Stokes.
Rare in old cultures of pond water.

16. DIDINIUM NASTUM Muell.
Common in company with *Paramaecium caudatum*, upon which it feeds.

17. LACRYMARIA OLOR Muell.
Rare in cultures of pond water.

Family Trachelinidae.

18. DILEPTUS GIGAS C. & L.
Rare in old cultures of pond water.

19. LIONOTUS FASCICOLA Ehr.
Very common among bacteria in old cultures of pond water which previously contained *Coleps*, *Paramaecium*, *Didinium*, etc.

Family Chiliferidae.

20. FRONTONIS LUCAS Ehr.
Common with bacteria in cultures of pond water, appearing with the last of *Paramaecium caudatum* and before *Lionotus*.

Family Urocentridae.

21. UROCENTRUM TURBO Muell.
Very common in company with *Paramaecium*, *Frontonia*, etc.

Family Paramaeciidae.

22. PARAMAECIUM CAUDATUM Ehr.
Very common in cultures of pond water.

23. PARAMAECIUM BURSARIA Ehr.

Rather rare in old cultures in which *Euglena* and *Amoeba* were beginning to appear. The green coloring matter of this species is due, according to European algologists, to the presence within the animalcule of numerous individuals of a Protococcoid Alga, *Chlorella vulgaris* Beyer, and not to a pigment of the *Paramaecium* itself. So far as I was personally able to study the form this view of a duality of species appears to be the correct one.

24. PARAMAECIUM TRICHINUM Stokes.

Rare among the bacteria in an old culture of pond water.

Family Stentoridae.

25. STENTOR CAERULEUS Ehr.

Common in old cultures after the bacteria had disappeared, and frequently in company with *Amoeba proteus.*

Family Oxtrichidae.

26. OXTHRICHIA PELLIONELLA Muehl.

Common in old cultures of both pond and spring water.

27. STYLONYCHIA MYTILUS Ehr.

Very common in old cultures from which *Paramaecium caudatum* had almost disappeared.

28. STYLONYCHIA PUSTULATA Ehr.

Common, in similar cultures to the last, but not always associated with that species.

Family Vorticellidae.

29. VORTICELLA CAMPANULA Ehr.

Very common in colonies in pond water, especially from ponds where there was an abundance of semi-decaying vegetation.

30. VORTICELLA NUTANS Mull.

Rather rare in pond water.

31. VORTICELLA ALBA From.

Rather rare in pond water.

32. VORTICELLA LONGIFILUM SK.

A solitary form which is rather common in pond water.

33. EPISTYLIS FLAVICANS Ehr.

Rare in cultures from which *Vorticella* had disappeared.